



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,465	01/10/2002	Mario Gerlach	GK-ZEI-3147 / 500343.2014	6478

7590

08/04/2003

GERALD H. KIEL
REED SMITH LLP
599 LEXINGTON AVENUE
29TH FLOOR
NEW YORK, NY 10022

EXAMINER

GIBSON, ROY DEAN

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 08/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/043,465

Applicant(s)

GERLACH ET AL.

Examiner

Roy D. Gibson

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 27-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "head ophthalmoscope" must be shown or the feature(s) canceled from the claim(s) as well as the "handpiece" of claim 52. No new matter should be entered. Also the Specification does not present an element number for the head ophthalmoscope or handpiece.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 27-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 27, 30, 33, 36, 39, 42, 45 and 48, recite the limitation "the applicator" in line 4. There is insufficient antecedent basis for this limitation in the claims.

Claims 45 and 48 are indefinite because of the recitation of "possibly" in lines 10 and 11 respectively.

Art Unit: 3739

Claims 35, 38, 41, 44, 47 and 50 do not appear to provide a further structural limitation to the claims from which they depend. A laser link with a zoom system is broadly recited in the independent claims.

In claim 52, CPC should be spelled out in the claim and in the specification. Further more, it is unclear how the "applicator" as defined by claim 48, can include all the elements in a handpiece.

All other claims are also indefinite since they depend for one of the independent claims above.

Correction is required.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27, 29-30 and 32 are rejected under 35 U.S.C. 103 as being obvious over Ueno et al. (6,530,918) in view of Toscheck et al. (6,327,278). Ueno et al. disclose a medical laser therapy device comprising all elements essentially as claimed except for the specific Nd-doped waveguide laser and its associated pump module with its coupling to the laser. Ueno et al. disclose a Nd:YAG laser source and frequency doubler to convert the laser output at 1064 nm to 532 nm so that it can be viewed by the

Art Unit: 3739

operator/surgeon (col. 3, line 66-col. 4, line 46, col. 5, lines 5-13, col. 5, line 55-col. 6, line 50). But, Toscheck et al. disclose a Nd-doped waveguide laser system pumped with a diode laser and the associated optics, waveguide end coatings, etc. (Figure 1 and col.1, lines 34-38, col. 4, line 66-col. 5, line 20 and col. 6, lines 25-40). One would be motivated to look for a replacement or alternative equivalent treatment laser for such a system if it provided the advantages disclosed by Toscheck et al., such as compact design, mechanical stability and insensitivity to external influences. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the device of Ueno et al., as taught by Toscheck et al., to provide an alternative laser system to realize the advantages disclosed or as an alternative equivalent in the art for providing a laser output at 1064 nm into a frequency doubler to produce the treatment beam at 532 nm.

Claims 33, 35, 36, 38, 39, 41, 42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. in view of Alphonse et al. (6,363,088).

As to claims 33, 35, 36 and 38, Ueno et al. fails to disclose a Pr/Yb-doped waveguide laser with suitable reflective end coating, etc. with emission at 520-540 nm. But, Alphonse et al. disclose a Pr/Yb waveguide laser pumped by 780-885 nm and emitting at 520 nm (col. 5, line 66-col. 6, line 51).

As to claims 39, 41, 42 and 44 Alphonse et al. disclose a Er-doped waveguide laser pumped by 970 nm and emitting at 544 nm (approximately 540 nm and col. 5, line 66-col. 6, line 51). Therefore, at the time of the invention it would have been obvious to

Art Unit: 3739

one of ordinary skill in the art to modify the device of Ueno et al., as taught by Alphonse, to provide an art recognized alternative equivalent laser light source.

Claims 45, 47, 48 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. in view of Marshall et al. (5,982,789). Ueno et al. fail to disclose a microchip laser with a green output. But, Marshall et al. disclose a microchip laser with an intracavity doubler which produces a green output and that is commercially available for numerous systems from JDS Uniphase Co. (col. 8, lines 24-31 and see Data Sheets attached). Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the device of Ueno et al., as taught by Marshall et al., to provide an art recognized alternative equivalent laser light source at a green wavelength.

Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. and Toscheck et al. as applied to claim 27 above and further in view of Hutchison (5,504,762). Neither Ueno et al. nor Toscheck et al. disclose the laser diode pump module comprises a measuring device for calibrating internal power regulation. But, Hutchison discloses a laser diode system with feedback control including a detector that can be used to adjust and/or regulate the optical output of the diode laser array (col. 5, line 66-col. 6, line 6). Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the device of Ueno et al./Toscheck, as taught

Art Unit: 3739

by Hutchison, to provide a means to measure and regulate the output power of the pumping module.

Allowable Subject Matter

Claims 28, 31, 34, 37, 40, 43, 46 and 49 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mizuno et al. (4,477,159) disclose a photocoagulator in the form of a head ophthalmoscope with all elements except a frequency doubler and a target beam; Lashkari et al. (6,350,031) disclose an electro-optic binocular indirect ophthalmoscope with a variety of laser diode sources providing near infrared out wavelengths; DiGiovanni et al. (5,923,684) disclose single mode silica Er/Yb doped fibers for amplifying a signal at 1550 nm; L'Esperance (4,580,559) disclose an indirect ophthalmoscope system for photocoagulation with a laser source, but lacks a waveguide laser and a target beam; Krasnov et al. (3,828,788) disclose a laser ophthalmoscope with an illumination, laser target and aiming beam; Sukigara et al. (5,252,999) disclose a laser binocular indirect ophthalmoscope with an He-Ne laser; and Sterling (5,817,088) discloses a laser indirect ophthalmoscope based on a slit lamp biomicroscope.

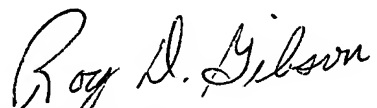
Art Unit: 3739

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy Gibson whose telephone number is (703) 308-3520. The examiner can normally be reached on Monday-Friday from 9 am - 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Linda Dvorak, can be reached on (703) 308-0994. The fax phone number for this Group is (703) 305-3590.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0858.

July 28, 2003


Roy D. Gibson
Patent Examiner
Art Unit 3739